

The State of Colorectal Cancer Screening and Prevention Whitepaper National Perspectives and Federal Policies (January 28, 2010)

Introduction

Colorectal cancer (CRC) is one of the most commonly diagnosed cancers in the United States, yet it is one of the most preventable forms of cancer as well. As the second leading cause of cancer death in the United States in both women and men, CRC is cancer of the colon (the large bowel or large intestine) or the rectum.ⁱ Colorectal cancer may begin as non-cancerous polyps, which are grape-like growths on the lining of the colon or rectum. These polyps may become cancerous over time.

Colorectal cancer can affect anyone – men and women alike – and is more common in people over the age of 50, as the risk of CRC increases with age. Some individuals are at greater risk for the disease than others, including individuals with a personal or family history of colorectal polyps, inflammatory bowel disease, ulcerative colitis or Crohn's disease.ⁱⁱ

It is estimated that 106,000 new colon and 41,000 rectal cancers were diagnosed and approximately 50,000 individuals died from this disease in the United States in 2009.ⁱⁱⁱ Although the incidence and death rate for CRC is high, it can be prevented and effectively treated with early detection. Unfortunately, screening and prevention for CRC lags behind similar efforts for breast and cervical cancer.

There are, however, a variety of efforts from government, healthcare professionals and patient advocacy organizations helping to close the CRC screening gap. Considerable progress has been made in recent decades, thanks in large part to improvements in screening, treatment and patient education.

This whitepaper focuses on U.S. federal government efforts to reduce the burden of colorectal cancer through surveillance, education and screening programs. Given its authority and scope of resources, the federal government is in a unique position to spur substantial progress in helping to prevent this curable disease.

This whitepaper covers the following areas:

- Clinical Standards for CRC Screening and Prevention
- CRC Screening Trends
- CRC Incidence and Mortality Trends
- Current Status of CRC Screening Coverage Laws
- Workforce and Healthcare System CRC Screening Capacity
- Federal Policies on CRC Screening and Prevention
- Federal Screening and Education Programs
- CRC and Healthcare Reform
- CRC and Federal Legislation in the 111th Congress

Clinical Standards for CRC Screening and Prevention

The CRC screening and prevention guidelines issued by the U.S. Preventive Services Task Force (USPSTF) are the only federally sponsored guidelines. Sponsored by the U.S. Department of Health and Human Services' Agency for Healthcare Research and Quality (AHRQ), USPSTF is a leading independent panel of private-sector experts in prevention and primary care. The USPSTF conducts rigorous, impartial assessments of the scientific evidence for the effectiveness of a broad range of clinical preventive services, including screening, counseling, and preventive medications. Its recommendations are considered the "gold standard" for clinical preventive services.^{iv} The Centers for Disease Control and Prevention (CDC) has endorsed the USPSTF recommendation,^v which is reflective of Medicare's coverage of CRC screening,^{vi} and is the recommendation referenced in the leading congressional efforts to reform the nation's healthcare system (*See section below on CRC and Healthcare Reform*). The current USPSTF recommendation on Screening for Colorectal Cancer was published on October 7, 2008,

by the *Annals of Internal Medicine* and AHRQ as an early online release.^{vii} The print publication of the recommendations occurred in *Annals* on November 4, 2008, and is summarized as follows:

- The USPSTF recommends screening for colorectal cancer (CRC) using fecal occult blood testing, sigmoidoscopy or colonoscopy in adults, beginning at age 50 years and continuing until age 75 years. The risks and benefits of these screening methods vary.
 - This is a “Grade A” Recommendation – The USPSTF recommends the service. There is high certainty that the net benefit is substantial.
- The USPSTF recommends against routine screening for colorectal cancer in adults age 76 to 85 years. There may be considerations that support colorectal cancer screening in an individual patient.
 - This is a “Grade C” Recommendation – The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is at least moderate certainty that the net benefit is small.
- The USPSTF recommends against screening for colorectal cancer in adults older than age 85 years.
 - This is a “Grade D” Recommendation – The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.
- The USPSTF concludes that the evidence is insufficient to assess the benefits and harms of computed tomographic colonography and fecal DNA testing as screening modalities for colorectal cancer.
 - This is an “I Statement” – The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.

In addition to USPSTF, the American Cancer Society, the American College of Radiology and the U.S. Multi-Society Task Force on Colorectal Cancer (a group that comprises representatives from the American College of Gastroenterology, American Gastroenterological Association, and American Society for Gastrointestinal Endoscopy) released joint consensus guidelines for colorectal cancer screening in March 2008.^{viii}

CRC Screening Trends

Reducing the number of CRC deaths is directly correlated to the early detection and prevention of pre-cancerous colorectal polyps, as well as detecting and treating the cancer in its early stages. CRC can be prevented by removing pre-cancerous polyps or abnormal growths, which can be present in the colon years before invasive cancer develops. When CRC is found early and treated, the 5-year relative survival rate is 90 percent. Because screening rates are low, less than 40 percent of colorectal cancers are found early.

CRC screening remains underutilized, despite the availability of effective screening tests. Screening for colorectal cancer lags far behind screening for breast and cervical cancers.^{ix} About half of the U.S. population aged 50 and older has not been screened for CRC. According to 2005 data from the National Health Interview Survey (NHIS), only 46.8 percent have had a fecal occult blood test (FOBT) in the past year, a sigmoidoscopy in the past five years or a colonoscopy in the last 10 years.^x Screening for CRC was particularly low among those respondents who lacked health insurance, those with poor access to healthcare services, and those who reported no doctor's visits within the preceding year. By contrast, in 2005, 67.9 percent of all U.S. women age 40–64 had a mammogram in the past two years.^{xi}

Additional information on screening trends is available from the CDC's Behavioral Risk Factor Surveillance System.^{xii}

CRC Incidence and Mortality Trends

According to the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) statistics tracking program, the estimated age-adjusted CRC incidence rate was 49.1 per 100,000 men and women per year from 2002-2006.

Incidence Rates by Race		
Race/Ethnicity	Male	Female
All Races	57.3 per 100,000 men	42.8 per 100,000 women
White	56.9 per 100,000 men	42.1 per 100,000 women
Black	69.3 per 100,000 men	53.5 per 100,000 women
Asian/Pacific Islander	46.9 per 100,000 men	34.6 per 100,000 women
American Indian/Alaska Native	43.1 per 100,000 men	41.2 per 100,000 women
Hispanic	46.3 per 100,000 men	32.2 per 100,000 women

For that same period (2002-2006), the age-adjusted death rate was 18.2 per 100,000 men and women per year. These rates are based on patients who died in 2002-2006 in the U.S.

Death Rates by Race		
Race/Ethnicity	Male	Female
All Races	21.9 per 100,000 men	15.4 per 100,000 women
White	21.4 per 100,000 men	14.9 per 100,000 women
Black	31.4 per 100,000 men	21.6 per 100,000 women
Asian/Pacific Islander	13.8 per 100,000 men	10.0 per 100,000 women
American Indian/Alaska Native	20.0 per 100,000 men	13.7 per 100,000 women
Hispanic	16.1 per 100,000 men	10.7 per 100,000 women

Colorectal cancer incidence and mortality rates generally have been dropping over the last two decades in the United States thanks to improvements in screening, treatment and patient education.^{xiii}

According to the CDC, the U.S. incidence of colorectal cancer has decreased significantly by 2.8 percent per year from 1998 to 2005 among men, and by 2.2 percent among women. Deaths from colorectal cancer have decreased significantly by 4.3 percent per year from 2002 to 2005 among men and women.^{xiv}

The decreases have been slower among minorities, many of whom have higher CRC incidence rates than whites. African Americans have the highest incidence rate for CRC followed by American Indian/Alaska Native then whites, Asian/Pacific Islander, and Hispanic individuals.^{xv} Despite general progress, current levels of CRC screening lag behind those of other effective cancer screening tests. If screening recommendations were followed, 18,800 deaths could be prevented each year. However, we are only currently preventing 58 percent of those deaths.^{xvi}

Current Status of CRC Screening Coverage Laws

There is no current federal law that requires insurance providers to cover the cost of CRC preventive screenings. The 2009 Colorectal Cancer Legislation Report Card, presented by a dozen leading health professional and patient advocacy organizations, provides a snapshot of each state's legislated coverage for CRC screening. Twenty-one states, plus the District of Columbia, received an "A," but 19 states received an "F," revealing that coverage for CRC screening is highly inconsistent across the United States.

2009 Colorectal Cancer Legislation Report Card – State Grades		
Grade	States	Explanation
A	21 – Alaska, Arkansas, Colorado, Connecticut, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland, Missouri, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, Oregon, Rhode Island, Virginia, Washington, Washington D.C.	States receiving an A reference accepted screening guidelines*, allowing the legislation to include coverage of future advances in screening methods.
B	4 – Delaware, Pennsylvania, Texas, West Virginia	States receiving a B meet current screening guidelines*, but no guidelines are specifically referenced. Therefore the legislation may potentially fall short of providing coverage for future advances in screening methods.
C	3 – California, Minnesota, Wyoming	States receiving a C have passed legislation that covers preventative cancer screenings, but the legislation is vague and does not specifically mention which types of colorectal cancer screenings are covered.
D	3 – Alabama, Oklahoma, Tennessee	States receiving a D have passed legislation that recommends insurance providers <i>offer</i> coverage, but does not <i>require</i> coverage.
F	19 – Arizona, Florida, Hawaii, Idaho, Iowa, Kansas, Massachusetts, Michigan, Mississippi, Montana, New Hampshire, New York, North Dakota, Ohio, South Carolina, South Dakota, Utah, Vermont, Wisconsin	States receiving an F do not currently have any legislation that requires insurance providers to cover preventative colorectal cancer screenings.**
* Screening guidelines of the American Cancer Society, American Gastroenterological Association, American College of Gastroenterology and American Society for Gastrointestinal Endoscopy. ** This report card grades legislation only. Some states with F grades are working with insurance providers to implement voluntary programs that will ensure widespread coverage for colorectal cancer screening.		

Workforce and Healthcare System CRC Screening Capacity

With a growing, aging population, the United States is facing a growing shortage of trained healthcare professionals. Twenty states are already facing physician and nursing shortages.^{xvii} The Council on Graduate Medical Education noted in 2005 that the U.S. population is projected to increase by 18 percent from 2000-2020, while medical school capacity is scheduled to increase by only about four percent.^{xviii}

Every healthcare profession is affected, including gastroenterology (GI), the leading field of specialists trained in CRC screening and colorectal disease. The United States is facing a shortage of gastroenterologists that will total at least 1,050 of these specialty physicians by 2020, according to a January 2009 study by Olympus and The Lewin Group.^{xi} The research indicates that the aging population and increased CRC screening rates will overwhelm the supply of GI physicians, challenging the nation's ability to provide adequate screening and treatment for the nation's number two cancer killer. The study found that training approximately 130 additional GIs per year (a 33 percent increase from current planned levels) starting in 2011 would increase supply by 1,550 gastroenterologists by 2020.

The Lewin study employed two proprietary simulation models – the National Colorectal Screening Model and the Physician Supply and Demand Model – to arrive at the unique GI workforce and CRC screening projections such as:

- If current age and gender screening rates remain constant, the aging population alone will create a shortage of 1,050 gastroenterologists by 2020. Under a scenario where national CRC screening rates increase by 10 percent, the shortage of gastroenterologists rises to approximately 1,550 over the same timeframe.
- If the nation sees a 10 percent increase in CRC screening rates over the next decade, the total annual number of screenings (beyond the anticipated growth associated with an aging population) increases by approximately 600,000 in the short term and by approximately 1,500,000 by 2020.^{xx}

Federal Policies on CRC Screening and Prevention

Medicare coverage is among the most important federal CRC screening and prevention policies, because of the large at-risk population it covers and its trend-setting factor for many other insurers.

Medicare covers various screening tests to help find colorectal cancer itself or identify and remove precancerous polyps.^{xxi} Coverage for these tests varies based on a beneficiary's risk for colorectal cancer. A beneficiary is considered to be at high risk if he or she has any of the following risk factors:

- A close relative (sibling, parent, or child) who has had colorectal cancer or an adenomatous polyp (a type of polyp that could become cancerous);
- A family history of familial adenomatous polyposis (this involves multiple adenomatous polyps, often in the hundreds, and carries a very high risk of colon cancer);
- A family history of hereditary nonpolyposis colorectal cancer (a type of colorectal cancer that runs in families and tends to cause cancer at a relatively young age - under 45 years);
- A personal history of adenomatous polyps;
- A personal history of colorectal cancer;
- A personal history of inflammatory bowel disease, including Crohn's Disease and ulcerative colitis.

Colorectal cancer screening tests and procedures can be used alone or in various combinations and include the following:

- Fecal occult blood test (FOBT)
- Flexible sigmoidoscopy
- Colonoscopy
- Barium enema

Medicare has covered colorectal cancer screening tests and procedures since 1998, but use of this benefit has been low. Medicare claims from 1998-2004 indicate that only about 52 percent of beneficiaries have had at least one claim for a colorectal cancer test during this window.^{xxii}

Federal Screening and Education Programs

The CDC, through its Division of Cancer Prevention and Control, supports CRC screening and prevention through a variety of education and screening initiatives, in addition to its surveillance and research work. Its four major CRC screening and education programs are:

- Screen for Life: National Colorectal Cancer Action Campaign
- National Comprehensive Cancer Control Program
- CRC Screening Demonstration Program
- Colorectal Cancer Control Program

Screen for Life: National Colorectal Cancer Action Campaign

CDC's multiyear Screen for Life: National Colorectal Cancer Action Campaign informs men and women aged 50 years or older about the importance of having regular colorectal cancer screening tests.^{xxiii}

To increase screening rates, Screen for Life:

- Increases awareness among adults aged 50 or older, that colorectal cancer is the second leading cancer killer in the United States.
- Increases awareness of the benefits of being screened for colorectal cancer.
- Helps to motivate patients to talk to their doctor and get screened for colorectal cancer.

In addition to its partnership with the Entertainment Industry Foundation and the National Colorectal Cancer Research Alliance, Screen for Life partners with 50 state health departments, two tribal organizations, and the District of Columbia, all of which use campaign messages and materials to increase awareness at the community level about the need for colorectal cancer screening for men and women aged 50 years or older.

National Comprehensive Cancer Control Program

The CDC established the National Comprehensive Cancer Control Program (NCCCP) in 1988, which provided seed money and technical support for the development and implementation of regional comprehensive cancer control (CCC) plans. Today, CDC funds CCC programs in all 50 states, the District of Columbia, seven tribes and tribal organizations, and seven U.S. territories.^{xxiv} There are now 65 CCC plans and all identify CRC control as a priority. Sixteen plans receive additional funds for CRC efforts, focusing on education and awareness.^{xxv} In addition to the CDC's efforts, several states also maintain a variety of colorectal cancer programs.^{xxvi}

CRC Screening Demonstration Program

CDC established a colorectal cancer screening demonstration program at five sites across the United States to increase screening among low-income men and women who have inadequate or no health insurance coverage for colorectal cancer screening.^{xxvii} The sites serve varied geographic areas and are funded from 2005 through 2009:

- Maryland Department of Health and Mental Hygiene—city-based (Baltimore)
- Missouri Department of Health and Senior Services—city-based (St. Louis)
- Nebraska Department of Health and Human Services—statewide
- Stony Brook University Medical Center/SUNY, New York—county-based (Suffolk county)
- Public Health-Seattle and King County, Washington—county-based (Clallam, Jefferson, and King counties)

In addition to colorectal cancer screening, the program sites provide diagnostic follow-up; conduct public education and outreach; ensure tracking and follow-up of clients screened; provide case management; establish standards, systems, policies and procedures; develop partnerships; collect and track data; and evaluate the effectiveness of the demonstration program.^{xxviii}

No federally-funded national program to screen the U.S. population for colorectal cancer currently exists. Before pursuing a broader effort, CDC established this three-year program to determine the feasibility of establishing a colorectal cancer screening program for the underserved U.S. population, and to learn which settings and program models may be most viable and cost-effective in reaching this population. Analysis of the program's results is ongoing.^{xxix}

Colorectal Cancer Control Program

On the heels of the CDC's successful CRC Screening Demonstration Program, the agency launched in September 2009 the Colorectal Cancer Control Program by providing funding to 26 states and tribes across the United States. The program supports population-based screening efforts and provides colorectal cancer screening services to low-income men and women aged 50–64 years who are underinsured or uninsured for screening, when no other insurance is available.^{xxx}

Funding for the program totals \$22 million and involves five-year grants ranging from \$358,283 to \$1.1 million. The funding will support screening and diagnostic follow-up care, patient navigation, data collection and tracking, public education and outreach, provider education and an evaluation to measure the clinical outcomes, costs and effectiveness of the program.^{xxxi}

By contrast, the CDC's National Breast and Cervical Cancer Early Detection Program provides access to breast and cervical cancer screening services to underserved women in all 50 states, the District of Columbia, five U.S. territories and 12 tribes.^{xxxii} In 2008, these programs received \$182 million in federal funding.^{xxxiii}

CRC and Healthcare Reform

Colorectal cancer screening and prevention has been a part of the national healthcare reform discussion. President Obama expressed support for CRC screening in his 2008 campaign^{xxxiv} and mentioned colonoscopy explicitly in his September 2009 address to a joint session of Congress, outlining his goals for healthcare reform:

“What this plan will do is make the insurance you have work better for you. ... Insurance companies will be required to cover, with no extra charge, routine checkups and preventive care, like mammograms and colonoscopies because there's no reason we shouldn't be catching diseases like breast cancer and colon cancer before they get worse.”^{xxxv}

The Patient Protection and Affordable Care Act (H.R. 3590), the leading Senate health insurance reform bill, includes two key provisions regarding CRC screening and prevention.^{xxxvi} Under reforms to the Individual and Group Insurance Markets, the bill expands coverage of preventive health services (Sec. 2713). Specifically, the section says:

“A group health plan and a health insurance issuer offering group or individual health insurance coverage shall provide coverage for and shall not impose any cost sharing requirements for—(1) evidence-based items or services that have in effect a rating of ‘A’ or ‘B’ in the current recommendations of the United States Preventive Services Task Force.”

The legislation also eliminates the patient copayment CRC screening tests “that are recommended with a grade of A or B by the United States Preventive Services Task Force for any indication or population and are appropriate for the individual” (Sec. 4104).

As of January XX, a bill has not been passed by both houses of Congress and sent to the president for his signature.

CRC and Federal Legislation in the 111th Congress

Aside from comprehensive healthcare reform proposals, there were five bills introduced in the first year (2009) of the 111th Congress dealing directly with colorectal cancer. None of the bills has advanced in committee to date.

- ***HR 1189 -- Colorectal Cancer Prevention, Early Detection, and Treatment Act of 2009***
 The bill would amend the Public Health Service Act to establish a national screening program at the Centers for Disease Control and Prevention and to amend title XIX of the Social Security Act to provide states the option to provide medical assistance for men and women screened and found to have colorectal cancer or colorectal polyps. The bill would authorize \$50 million in funding for grants to the states.
- ***HR 1330 -- Colorectal Cancer Screening and Detection Coverage Act of 2009***
 The bill would amend the Public Health Service Act, the Employee Retirement Income Security Act of 1974, the Internal Revenue Code of 1986, and title 5, United States Code, to require that group and individual health insurance coverage and group health plans and Federal employees' health benefit plans provide coverage of colorectal cancer screening.
- ***HR 2291 – Medicare Early Detection of Cancer Promotion Act of 2009***
 The bill would amend title XVIII of the Social Security Act to eliminate the 20 percent coinsurance for screening mammography and colorectal cancer screening tests in order to promote the early detection of cancer.
- ***HR 3591/S 1511 – Colorectal Examination and Education Now (SCREEN) Act of 2009***
 The bill amend titles XVIII and XIX of the Social Security Act to improve awareness and access to colorectal cancer screening tests under the Medicare and Medicaid programs, and for other purposes. Among other provisions, it authorizes the Secretary of Health and Human Services (HHS) to make grants to states and Indian tribes for colorectal health programs.
- ***S717 – 21st Century Cancer ALERT (Access to Life-Saving Early Detection, Research and Treatment) Act***
 The bill would modernize cancer research, increase access to preventative cancer services, provide cancer treatment and survivorship initiatives, and for other purposes. It would expand coverage of colorectal screenings, including through providing grants and allowing states to provide coverage for such screenings under Medicaid.

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Endnotes

- ⁱ <http://www.cdc.gov/cancer/Colorectal/>
- ⁱⁱ <http://www.nlm.nih.gov/medlineplus/colorectalcancer.html>
- ⁱⁱⁱ <http://www.cancer.gov/cancertopics/types/colon-and-rectal>
- ^{iv} <http://www.ahrq.gov/clinic/uspstfab.htm>
- ^v http://www.cdc.gov/cancer/Colorectal/basic_info/screening/guidelines.htm
- ^{vi} <http://www.cms.hhs.gov/colorectalcancerscreening/>
- ^{vii} <http://www.ahrq.gov/clinic/uspstf/uspscolo.htm>
- ^{viii} http://www.cancer.org/docroot/MED/content/MED_2_1x_Health_Groups_Issue_Updated_Colorectal_Cancer_Screening_Guidelines.asp
- ^{ix} http://www.cdc.gov/cancer/colorectal/statistics/screening_rates.htm
- ^x <http://www.cdc.gov/nchs/nhis.htm>
- ^{xi} <http://caonline.amcancersoc.org/cgi/content/full/CA.2007.0011v1>
- ^{xii} <http://statecancerprofiles.cancer.gov/cgi-bin/risk/risk.pl?23&0&1&1&1>
- ^{xiii} http://www.google.com/hostednews/ap/article/ALeqM5gF_0_hI55fpOYSdu2FYARxeBm46wD9CF538G0
- ^{xiv} <http://www.cdc.gov/cancer/Colorectal/statistics/trends.htm>
- ^{xv} <http://www.cdc.gov/cancer/colorectal/statistics/race.htm>
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